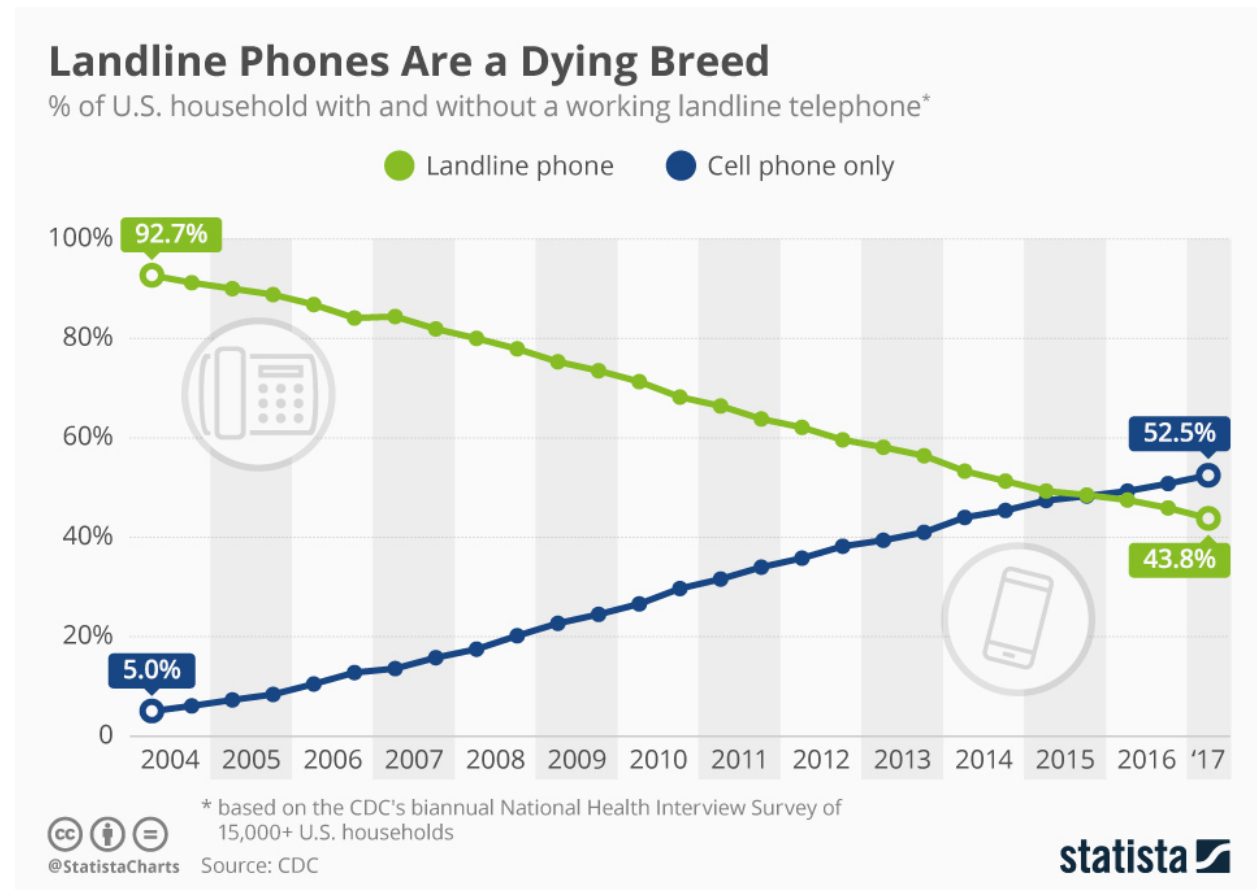


## Average Rate of Change: Cell Phone Only Households

The following graph appeared on the *Statista.com* website on Jan 8, 2018, and can be accessed at <https://www.statista.com/chart/2072/landline-phones-in-the-united-states/>.



The graphs that appear on this chart appear to be roughly linear. Let's calculate the average rate of change over different periods of time to see if this assumption is reasonably correct. Note that each year has two points, so for each year we'll just use the first point.

Time period	Points on cell phone graph	Average rate of change for cell phones
2004 to 2008	(2004, 5.0) (2008, 18.8)	
2004 to 2012	(2004, 5.0) (2012, 35)	
2004 to 2017	(2004, 5.0) (2017, 52.5)	

Do you think the graph of households with only cell phones is linear? Why or why not?